

Indian Creek FMU

The Indian Creek FMU is 86,254 acres. The majority of lands within the FMU are in the General Forest management area. This FMU is entirely within Federal DPA. The northern most portion of the watershed lies within the boundary of the Rogue River Siskiyou National Forest.

The WUI communities at risk occur primarily along the lower reaches of Indian Creek from Happy Camp. There are very few residences located in the upslope portions of the FMU, primarily in the Deer Lick and Luther Gulch drainages directly below Slater Butte Lookout.

Fire Protection Responsibility	Acres	Percent of FMU
Klamath National Forest	84,008	97%
Rogue Siskiyou National Forest	2,246	3%
Wildland Urban Interface	Acres	Percent of FMU
Community At Risk	1,341	2%
Defense Zone	6,476	8%
Threat Zone	19,954	23%

3.2.2 Guidance

The LMP Management Area specific guidance is listed below.

Management Area	Acres	Percent of FMU
Wilderness	12,312	14%
LSR	14,226	16%
TES Species Habitat	252	<1%
RNA/SIA/CUA	393	<1%
Managed Wildlife	3,279	4%
Riparian Reserves	14,301	17%
Retention	1,473	2%
Partial Retention	11,799	14%
General Forest	22,985	27%
No Data	108	<1%
Private (may include BLM)	2,878	3%
Rogue Siskiyou NF	2,246	3%

Wilderness

The Siskiyou Wilderness is located along the southwest portion of the FMU. This wilderness is administered by both the Klamath and Six Rivers National Forests.

Description

Wilderness areas are mostly pristine landscapes, managed as vestiges of a wild America. Wilderness resources provide specific values such as solitude, physical and mental challenges, and opportunities for scientific study and primitive recreation.

Management Goals

Manage for wilderness characteristics, natural conditions, and ecological processes within each wilderness.

Provide recreationists a primitive and semi-primitive, non-motorized recreation opportunity.

Manage for high air quality.

Utilize forage resources consistent with the 1964 Wilderness Act, as amended.

Desired Future Condition

Each wilderness looks natural, with human disturbances substantially unnoticeable. Ecological processes, including fire, have shaped the vegetative patterns and condition. Some evidence of human influence consistent with the Wilderness Act may be present due to valid mining claims, livestock grazing, and recreational use.

Standards and Guidelines

- MA2-1 To better emphasize wilderness values, manage each wilderness as an integrated resource with inseparable ecosystem parts.
- MA2-2 Minimize the use of motorized equipment and mechanical transport of materials and personnel within wilderness. Carefully analyze the need for motorized equipment and obtain prior documented approval. Schedule such work to avoid disturbance to the public.
- MA2-3 Wilderness values shall predominate if resource conflicts are identified.
- MA2-7 Naturally occurring ecological processes should predominate within wilderness ecosystems.
- MA2-16 Manage smoke from prescribed natural fires (PNF) as a component of the wilderness. Manage prescribed natural fires and prescribed burns (ignited by humans) to reduce future smoke emissions. Coordinate with the proper State and local agencies to meet air quality regulations (see Forest-wide Standards and Guidelines for Air Quality, Fire Management).
- MA2-55 All lightning-started fires will be PNF; unless the fire does not meet the goals and objectives (it then will be declared a wildfire). Permit lightning-caused fires to play their ecological role, as nearly as possible, within the wilderness.
- MA2-56 Each PNF will have a PNF Burn Plan prepared within 48 hours of discovery. Review the Burn Plan daily to assure validity based on current and projected conditions.
- MA2-57 Coordinate fire management actions with forests that share management of the wildernesses.
- MA2-58 A Wilderness Fire Coordinator (WFC) may be established to gather and send out information and aid to the National Forests and Region. The WFC will set priorities for on-going fires within the wilderness areas. The WFC should be at least Nationally qualified as a Prescribed Fire Manager. As a minimum, the WFC should have 1 Fire Information Officer and a Wilderness Resource Advisor.

- MA2-59 Consider all person-caused wildland fires (not management lighted prescribed fires) as wildland fires and use the appropriate suppression response.
- MA2-60 Reduce to an acceptable level the risks and consequences of a wildland fire within or escaping from the wilderness. Assessments of consequences will emphasize potential impacts on residential intermixes, mixed or adjacent landowners, Endangered or Threatened species, etc.
- MA2-61 Permit planned ignitions or management-lighted prescribed fire. This will allow fire to return in a more natural role so managers can select meteorological and fuel situations for future prescribed natural fire. Wilderness fire policy permits the use of management-lighted fires.
- MA2-62 Suppression of wildland fire will use appropriate suppression response and the Minimum Impact Suppression Techniques as outlined in the Forest-wide Fire and Fuels Management Standards and Guidelines.
- MA2-63 Fire prevention will be an important practice within wilderness. Fire prevention activities, such as signing, will concentrate on entrance portals to not diminish the visitor's wilderness experience. Visitor contacts within the wilderness will occur when there is a threat to wilderness preservation or resource protection.
- MA2-64 Develop a PNF implementation schedule. For all the resources, develop the decision flow charts and prescription parameters that meet the resource standards and guidelines.

Emergency use of motorized equipment and mechanical transport within the wilderness must be consistent with the delegated authority and approval process outlined by the Forest Supervisor in the letter dated June 2, 2009 (2320/5130). It is also expected that a Wilderness Resource Advisor (WRA) will be assigned to every wilderness fire.

When emergency use of motorized equipment is granted, the authorization must be documented using the [Emergency Wilderness Mechanized Transport/Motorized Equipment Use Authorization](#) form.

BAER is only allowed in wilderness if (1) necessary to prevent an unnatural loss of the wilderness resource or (2) to protect life, property, and other resource values outside of wilderness. Normally use hand tools and equipment to install selected land and channel treatments (FSM 2323.43b)

TES Species Habitat

The TES Species habitat consists of a peregrine falcon management area located in the West Fork of Indian Creek, the Seiad and Runaway LSRs, and seven Activity Centers located outside the LSR network.

Description

Each of the T&E species requires different habitat. When the habitat of these species overlap, the management priority shall be placed on the species with the most specialized habitat needs (that is, the rarest occurring habitat).

Management Goals

Provide habitat conditions and management activities that contribute to the recovery of Federally listed T&E species and to Sensitive species found on the Forest. Emphasize the recovery of each species, by managing for quality habitat, consistent with ecological processes.

Provide for more than the minimum number of bald eagle and peregrine falcon pairs established by the Recovery Plans and disaggregated to the Forest.

Late Successional Reserves

Late-Successional Reserves are designed to provide for the viability needs of all late-successional species in an ecosystem approach. Meet the habitat requirements as outlined in the *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl* signed April 13, 1994 and the *Final Supplemental Environmental Impact Statement on Management of Habitat for Late Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl* dated February 1994 (FSEIS).

Description

LSRs have been designated based on 5 elements: (1) areas mapped as part of an interacting reserve system; (2) Late-successional/Old Growth 1 and 2 areas within Marbled Murrelet Zone 1 and certain owl additions, mapped by the Scientific Panel on Late-Successional Forest Ecosystems (1991); (3) sites occupied by marbled murrelets; (4) known owl activity centers; and (5) Protection Buffers for specific endemic species identified by the Scientific Analysis Team (1993). Additional areas may be included as species are identified as provided for in the survey and management standards and guidelines.

Management Goals

The objective of LSRs is to protect and enhance conditions of late-successional and "old growth" forest ecosystems, which serve as habitat for late-successional and "old growth"-related species including the northern spotted owl. These reserves are designed to maintain a functional, interacting, late-successional and "old growth" forest ecosystem.

Desired Future Condition

The characteristics of individual areas vary according to the dominant vegetative species, site class, topography and other site factors. Well-dispersed and continuous areas of multi-layered forests with high quality habitat characteristics and attributes are common: (1) under optimum conditions on north slopes, (2) at high elevations, and (3) in cool, moist areas. The overstory trees are large diameter, tall and have obvious signs of decadence. Some are broken-topped, have mistletoe, or have platforms of branches capable of holding organic materials that serve as a nest. Snags are common and fallen trees visible on the ground, providing for adequate prey populations. Within true fir habitats or where hardwoods occur, mid-seral stage forested areas provide suitable habitat as well. Although overstory trees are smaller and stands are less dense, important structural elements, such as snags and nesting platforms, are present. South slopes and drier areas are more open due to frequent natural fires.

Exceptions

RNAs and activities required by recovery plans for listed T&E species take precedence over LSR standards and guidelines.

Management Assessment for Late-Successional Reserves

Management assessments have been completed for LSRs and 100-acre LSRs throughout the Forest. These LSR assessments include: (1) a history and inventory of overall vegetative conditions within the reserve, (2) a list of identified late-successional associated species known to exist within the LSR and information on their locations, (3) a history and description of current land uses within the reserve, (4) a fire management plan, (5) criteria for developing appropriate treatments, (6) identification of specific areas that could be treated under those criteria, (7) a proposed implementation schedule tiered to higher order (for example, larger scale) plans, and (8) proposed monitoring and evaluation components to help evaluate if future activities are carried out as intended and achieve desired results. The Regional Ecosystem Office (REO) has reviewed these LSR assessments. Activities that have been reviewed by the REO have been prioritized for each LSR. LSRs have also been prioritized by activity needs. Refer to the Forest-wide LSR assessment, Taylor, Dillon, Crapo/Little North Fork, and Goosenest LSR assessments. Also, refer to Appendix K, LSR Fire Management Plan, located at the end of this document.

Standards and Guidelines

- MA5-35 Each LSR will be included in fire management planning as part of watershed analysis. Fire suppression in LSRs will utilize minimum impact suppression methods in accordance with guidelines for reducing risks of large-scale disturbances. Plans for wildfire suppression will emphasize maintaining late-successional habitat. During actual fire suppression activities, fire managers will consult with resource specialists (for example, botanists, fisheries and wildlife biologists, hydrologists) familiar with the area, these standards and guidelines and their objectives, to assure that habitat damage is minimized. Until a fire management plan is completed for LSRs, suppress wildfire to avoid loss of habitat in order to maintain future management options.
- MA5-36 In LSRs, a specific fire management plan will be prepared prior to any habitat manipulation activities. This plan, prepared during watershed analysis or as an element of province-level planning or a LSR assessment, should specify how hazard reduction and other prescribed fire applications will meet the objectives of the LSR. Until the plan is approved, proposed activities will be subject to review by REO. REO may develop additional guidelines that would exempt some activities from review. In all LSRs, watershed analysis will provide information to determine the amount of CWD to be retained when applying prescribed fire.
- MA5-37 In LSRs, the goal of wildfire suppression is to limit the size of all fires. When watershed analysis, province-level planning, or a LSR assessment is completed, some natural fires may be allowed to burn under prescribed conditions. Rapidly extinguishing smoldering CWD and duff should be considered to preserve these ecosystem elements.

- MA5-38 Utilize an aggressive prescribed fire program to maintain long-term habitat quality and ecological processes within LSRs once LSR assessments and National Environmental Protection Act (NEPA) analysis are completed and site-specific decisions are made. Specific fire prescriptions shall be used until PNF can be effectively used. The use of PNF is outlined in the Wilderness Fire Management S&Gs. Those S&Gs also shall apply to LSRs.
- MA5-39 Report wildfires within activity centers to the appropriate District and/or Forest biologist. The biologist shall determine the need to contact the USFWS. Report fires that escape initial attack to the USFWS. Motorized and heavy equipment may be permitted by the Incident Commander to assure habitat protection.
- MA5-40 Wildfire prevention should be critical to habitat maintenance. During critical fire danger periods, increased prevention efforts should be undertaken, especially in high use recreation areas within LSRs and in areas adjacent to populated areas.

Peregrine Falcon

Description

Areas to be managed for peregrine falcon include nest sites and protective zones around nest sites. These nest sites occur on cliffs, generally near riparian habitats. A Peregrine Falcon Recovery Plan was approved in August 1982.

Management Goals

Provide habitat that will contribute to the recovery of the Pacific peregrine falcon. Management activities consistent with the USFWS's approved Recovery Plan are expected to accomplish this goal.

Manage peregrine habitat on the Forest to protect and maintain nesting and foraging sites.

Desired Future Condition

Peregrine falcons are nesting on tall cliffs across the Forest. Adjacent habitat areas, especially riparian areas, provide the nesting birds with an adequate supply of prey species. Human disturbance during the breeding season is infrequent.

Standard and Guidelines

- MA5-76 Report wildfires within the primary protection areas to the appropriate District and/or Forest biologist. The biologist shall be responsible for contacting the USFWS, if appropriate.
- MA5-77 Implement the appropriate suppression response and minimum impact suppression techniques.
- MA5-78 Design fire prescriptions to maintain or improve peregrine falcon habitat and restore ecological processes.

Managed Wildlife

Description

A Managed Wildlife Area has been established on the westside of Indian Creek on the Happy Camp Ranger District, which provides habitat for a broad range of species dependent on

structural features common to late-successional vegetation in an ecosystem approach. This area includes one Sensitive wildlife species, fisher (*Martes pennanti*).

The Managed Wildlife Area is at low to mid-elevation (below 4,000 feet). It currently provides open to dense stands of mid- to late-seral stage conifers. The area also has inclusions of early seral stage vegetation.

Management Goals

Manage the area to provide for late-successional habitat.

Manage habitat attributes, compatible with ecological processes, to provide moderate to high quality habitat conditions on the Forest as defined in the Fisher Habitat Capability Model (refer to Appendix I of the EIS).

Test and demonstrate the effectiveness of treatments for use in LSRs in an adaptive management approach.

Desired Future Condition

Large stands of mid- to late-seral stage, mixed conifer or Douglas-fir provide habitat for a variety of species. Canopy closures are as dense as the capability of the site allows. Hardwoods occur as a component of the coniferous forest, or as pure stands providing for acorn woodpeckers and squirrels. Many forest stands are multi-layered.

Large snags and logs are available, serving as denning and resting habitat for fisher as well as maintaining populations of cavity-dependent species, fungi, arthropods, bryophytes, amphibians and other organisms. Stream riparian areas, where present, are well-developed with dense forest providing travel habitat for fisher as well as maintaining populations of frogs, turtles and birds. Signs of vegetative management might be noticeable, but do not occur as large openings. Open roads are managed at desired levels.

Standards and Guidelines

MA6-14 Prescribed fire or biomass utilization may be used to reduce fuel build-ups and to enhance or maintain suitable habitat, consistent with management area objectives and the fire management plan.

Special Interest Areas

There are seven SIAs in this FMU. The Preston Peak SIA has been established for both botanical and geologic values. Four of the SIAs are botanical areas. This includes Indian Creek Brewer Spruce, Poker Flat, Rhododendron Patch, and Sutcliff Creek. The remaining two SIAs, Elk Lick and the West Fork Waterfall and LandSlide, are established for geologic significance.

Description

Special Interest Areas (SIAs) are sites designated for recreational experiences where education and interpretation of unique or special natural resource values are emphasized. Highlighted are botanical and geologic features to increase Forest visitor appreciation of resource values and natural diversity within the Forest.

Management Goals

Manage for ecological processes and the unique features for which the area was designated.

Promote public use, education, interpretation and enjoyment of the special interest values of the area when such activities do not harm the values for which the area was designated.

Desired Future Condition

The vegetative, geologic and other natural features are enhanced to emphasize the unique resource for which the area was designated. Few signs of management activities are present, other than to provide public access and accommodations. Minor vegetative clearing is evident to allow

Standards and Guidelines

MA7-20 Manage prescribed natural fire, prescribed fire, and biomass utilization to maintain the ecological processes within the SIA. Protect all facilities and developments.

Retention VQO**Description**

These areas are scattered throughout the Forest. They typically are found: (1) in the foreground of high visual sensitivity roads, trails, etc., (2) in the foreground or middle ground of areas with Variety Class A scenery or (3) areas seen from local communities (USDA Agriculture Handbook #462, National Forest Landscape Management, Vol. 2, Chapter 1). These roads and trails typically receive high levels of public use, or access recreation sites or areas with visually pleasing scenery.

Management Goals

Provide a level of attractive, forested scenery by maintaining the areas in a natural or natural-appearing condition. Manage human activities so they are subordinate to the characteristic landscape. Also, manage human activities so they are not evident to the casual Forest visitor.

Manage for a programmed, sustained harvest of wood products in areas that are capable, available, and suitable for timber management.

Maintain stand health, as well as resilience to wildland fire, insect, disease, and other damage.

Desired Future Condition

The signs of management activities are not apparent. Views from visually important roads and trails appear forested and provide a natural or natural-appearing forest.

Vegetative or ground-disturbing management activities that have been implemented repeat form, line, color, and texture that represent characteristics of the landscape. Changes in their qualities of size, amount, intensity, direction, pattern, etc. are not evident to the average Forest visitor.

Standards and Guidelines

MA11-14 Use prescribed fire to reduce natural fuel buildups, to treat post-harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

MA1-15 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

Partial Retention VQO

Description

This prescription applies to those areas identified with a Partial Retention VQO. It encompasses 188,500 acres. These areas typically are either in the foreground of moderate visual sensitivity roads, trails, etc., or the middleground of high sensitivity roads.

Scattered throughout the Forest, these areas are primarily in the middle distances (1/2 to 3 miles) from selected roads and trails.

Management Goal

Provide an attractive, forested landscape where management activities remain visually subordinate to the character of the landscape. Manage human activities so they are subordinate to the character of the landscape.

Maintain stand health as well as resilience to wildland fire, insect, disease, and other damage.

Desired Future Condition

Areas managed to meet a Partial Retention VQO may show evidence of management activities but are visually subordinate to the characteristic landscape in form, line, color, or texture of landscape elements. Views from visually important roads and trails appear forested and provide a nearly natural looking landscape.

Lands capable of growing coniferous vegetation are forested.

Standards and Guidelines

MA15-15 Use prescribed fire to reduce natural fuel buildups, to treat post harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

MA15-16 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

General Forest

Description

Scattered throughout the Forest, these areas make up about 11% (262,000 acres) of the Forest land base. They are lands that are capable, available, and suitable to be managed for a host of resource conditions, including structural component and commercial outputs. They currently support a variety of vegetation including shrubs, hardwood species, and various tree species in varying sizes and densities. They are areas where timber outputs, consistent with Forest-wide management goals, are of a high priority.

Management Goals

Provide a programmed, non-declining flow of timber products, sustainable through time. These levels may vary from year to year, based on ecological processes. Maintain conifer stocking levels and high growth rates commensurate with the capability of the site to produce wood fiber. Intensively manage young regenerated stands to maximize growth potential.

Maintain stand health, as well as resilience to wildland fire, insect, disease, and other damage. Emphasize salvage and restoration from catastrophic events. Reforest capable, but currently non-stocked, lands.

Emulate ecological processes and stand and landscape patterns where possible. Within harvest units, maintain appropriate structure, composition, and ecological functioning of the area.

Provide for snags and hardwood habitat to help maintain viable populations of wildlife species that require these structural components.

Meet the VQOs. Achieve less modified visual conditions when possible.

Develop a transportation system to transport Forest commodities efficiently to available markets.

Where possible, adjust planting levels to reduce pre-commercial thinning and fuel hazard costs in the future.

Desired Future Condition

The mosaic of healthy forest stands is comprised of a variety of vegetative species. The composition of individual stands varies considerably depending on forest type and seral stage development. Although openings with hardwoods, shrubs, grasses, and forbs are apparent, forest stands consist primarily of conifers. In some areas, the conifer component of the vegetation is sparse (due to vegetative manipulations or natural conditions). All areas maintain some structural components of older stands. Some areas support mature forest stands. The oldest stands are between 80 and 120 years old. Generally, this portion of the forest has younger trees than the surrounding areas. Stand sizes vary with topography and the landscape pattern of surrounding areas.

Regeneration openings have clumps of green trees on at least 15% of the area. Existing seed tree and shelterwood stands retain their residual trees (3 to 12 trees/acre) for structural diversity.

Stocking control maintains healthy, vigorously growing stands.

Reforestation, timber harvesting, and stand tending activities are commonplace. A network of roads provides access throughout these areas.

Habitat for species, which use early and mid-seral stages, is abundant.

Standards and Guidelines

MA17-15 Use prescribed fire to reduce natural fuel buildups, to treat post harvest fuels and to influence vegetative development or composition when there is no market for the slash or down wood.

MA17-16 Design fuelbreaks to mimic the natural characteristics of the area. On steep ground, design units that are operationally feasible and effective to treat fuels.

3.2.3 FMU Characteristics

Indian Creek FMU extends from the Oregon border south to the Klamath River, and from Thompson Ridge west to the northeast portion of the Siskiyou wilderness. A small portion (roughly 2200 acres) of the northern most portion of this FMU is located on the Rogue River Siskiyou National Forest.

3.2.3.1 Safety

Aviation Hazards: Power lines running from from Oregon to Happy Camp paralleling Indian Creek Road. Slater Butte Lookout and Baldy Mountain (historic) lookout are also identified as aviation hazards.

Roads: The main access road is the Indian Creek road (County 7C01 turning to 40S01) running from Happy Camp to the Oregon border. This road is locally referred to as the Grayback road.

Other hazards: Underground cable running along the East Fork road and multiple power poles in the vicinity of the houses. The secondary roads in the area are single lane and brushy with potential slumps and washes.

3.2.3.2 Physical

The headwaters of Indian Creek drainage are located in Oregon and administered by the Rogue Siskiyou National Forest. Weston Mountain, Althouse Mountain and Tanner Mountain are prominent peaks along the northern boundary. Thompson Ridge forms the eastern boundary, with Jackson Peak and Slater Butte. The community of Happy Camp is located in the southern tip of the FMU. Prominent peaks that make up the southern and western boundary are Baldy Mountain, Boulder Peak, Preston Peak, Copper Mountain, The Lieutenants, Polar Bear Mountain and Little Grayback.

This FMU is primarily a north/south drainage located north of the Klamath River. Indian Creek branches into three forks roughly in the center of the FMU. In addition to the main stem of Indian Creek, there is an East and South Fork. The East Fork tends to run parallel with the main stem. The South Fork of Indian Creek is only prominent east/west drainage within the FMU.

Much of this FMU does have road access.

This FMU has a greater amount of area with gentle topography than most other FMUs on Happy Camp Division. Much of the area <30% slope occurs along the valley bottom on either side of Indian Creek.

Slope Class	Acres	Percent of Area
<30%	25,406	29%
30-45%	23,903	28%
45-60%	21,224	25%
60-90%	14,991	17%
>90%	778	1%

The elevation ranges from roughly 1000 feet to just over 7100 feet at Preston Peak. Elevation ranges are classified consistent with the major ecological zones in the Klamath Mountain Bioregion (Sugihara et al 2006). Generally the area <2000 feet occurs along the lower portion of Indian Creek. Most of the FMU is between 2000 and 4200 feet.

Elevation Zone	Acres	Percent of Area
Lower Montane (<2000 ft)	8,023	9%
Mid–Upper Montane (2000-4250 ft)	51,238	60%
Upper Montane to Subalpine (4250-6000 ft)	26,770	31%
Subalpine(>6000 ft)	279	<1%

Inversions generally set in at around the 4200 foot level. When this occurs smoke will settle into the drainages below 4200, impacting both availability of aviation resources and local air quality in the surrounding communities. Roughly one third of the FMU is above located above the inversion layer.

3.2.3.3 Biological

Vegetation is grouped by Wildlife Habitat Relationship (WHR) Vegetation Type. Conifers are the dominant life form within the FMU. More than half of the FMU is occupied by large, closed canopy, conifer dominated stands. More open conifer dominated stands (<40% canopy closure) occupy less than 10% of the FMU. Hardwood dominated stands include pure hardwood stands and stands with a minor conifer component.

WHR Life Form	Acres	Percent of Area
Non-vegetated & Herbaceous	1,557	2%
Shrub Vegetation Types	6,933	8%
Hardwood Dominated	8,504	10%
Small Conifers (<11" dbh)	14,062	16%
Large Conifers (>11" dbh)	55,254	54%

The Douglas-fir vegetation type is the dominant WHR type found in the FMU. This WHR type occurs in all elevations zones. White fir WHR occurs almost exclusively in the upper montane to subalpine zone. Red fir is a very minor component within this FMU, occurring in limited quantities primarily on the western boundary the southern point around Bald Mountain to Tanner Mountain on the northern border.

The South Fork of Indian Creek has a higher proportion of Jeffery pine WHR type. This WHR type is strongly associated with serpentine and peridotite parent material. This portion of the FMU is also where the mixed chaparral shrub type primarily occurs.

Montane chaparral is concentrated on the upper reaches of the FMU. Hardwood dominated stands are found throughout the FMU, occurring primarily in the southern portion of the FMU. Plantations make up roughly 14% of this FMU.

Plantation Age	Acres	Percent of Area
>40 Years	6,127	7%
20 – 40 Years	5,032	6%
<20 Years	1,206	1%

Fisheries

There are four anadromous species, as well as resident trout species in this FMU. The Coho and Fall Chinook salmon habitat is limited to the main stem and south Fork of Indian Creek as well as a small segment of Doolittle Creek in the southern part of the FMU. Both steelhead species can be found in all forks of Indian Creek and the lower reaches of Doolittle Creek. Resident trout occupies the same stream systems, extending slight further up stream than steelhead habitat.

Fish Species	Species Status	Miles of Habitat
Coho Salmon	ESA listed as Threatened	21.5
Fall Chinook	FS designated Sensitive	18.8
Spring Chinook	FS designated Sensitive	0
Summer Steelhead	FS designated Sensitive	47.1
Winter Steelhead	FS designated Sensitive	47.1
Resident Trout	Unlisted	56.5

Wildlife

There is a peregrine falcon management area in the West Fork Indian Creek roughly two miles north of Boulder Peak. If fires occur within the primary protection area, contact the appropriate district of Forest wildlife biologist.

Aircraft operations in close proximity could constitute a disturbance. Consideration should be given to minimize potential for disturbance without compromising safety and wildfire management objectives.

3.2.3.4 Resources

Historic Sites: River accesses and West Branch Campground are traditional hunting camps. They have prehistoric and historic value. These areas are also locations of concentrated use and dispersed camping today.

Structures: Private Property is clustered along Indian creek road with scattered isolated house on the South Fork of Indian Creek, the East Fork and Mill Creek drainages.

Slater Butte Lookout is located on the eastern boundary of this watershed. Additional infrastructure located as Slater Butte includes communications facilities for Forest Service as well as local and county emergency services and commercial cell phone towers.

There are four Genetic Progeny sites located within this FMU. These are locations that provide genetically superior seed sources and represent a substantial monetary investment.

Name	Latitude	Longitude
Classic	41.90012833	-123.45906333
HC Outplant Site	41.88569667	-123.40272833
Poker Flat(RRSP)	41.93866667	-123.53450000
Sutcliffe-Happy Camp RD	41.93911667	-123.51241667

The West Branch Forest Service Guard Station is located on the Indian Creek road approximately 15 miles outside of Happy Camp. This station has not been occupied since 1998. In addition to the Guard Station, there are several Forest Service sites with improvements and/or concentrated use by the public. The following sites are listed on the SDE Server under Klamath Library.

Campgrounds	Trailheads	River Access	Concentrated Use Areas
West Branch	Poker Flat	Indian Creek	Brewers Spruce Overlook
Baldy Mountain Lookout*	Kelly Lake		Grayback Overlook
Poker Flat*			Curry Homestead
Kelly Lake*			Coon Run
Twin Valley*			Indian Town

* Dispersed Camp Sites

3.2.4 FMU Fire Environment

A total of 631 fires have occurred over the period of record (1911 – 2009). The majority of fires have been caused by lightning (61%). Although there have been numerous fires, initial attack efforts have kept fires small. Roughly 90% of the FMU has not burned during the period of record. Most fires are suppressed at less than 10 acres. A total of 19 fires have a mapped perimeter (3% of all ignitions). These fires burned a total of 9,973 acres, with only 1,222 acres having at least two fires occurring over the period of record. The average fire size is 525 acres. The largest fire (Thompson fire) occurred in 1987. This fire was contained at 18,180 acres and burned 2,332 acres within this FMU.

There are few natural barriers within this FMU. There may be limited options to use natural features to confine fires within the FMU in the South Fork of Indian Creek from Baldy Mountain to Polar Bear Mountain. There are numerous roads, and a few ridge top roads, within the FMU. There are existing dozer lines from the 1987 fires along the eastern boundary

3.2.4.1 Fire Behavior

This FMU is dominated by timbered fuel types. Timber litter models (184-189) make up the majority of the fuel type in this FMU. These are moderate to high load timber litter models with higher rates of spread and flame length for this fuel group.

Shrub fuel models constitute the next highest percent of area. The shrub fuel group is made up primarily of fuel models 142 and 145. Fuel Model 142 is a moderate load dry climate shrub model with a fuel depth of roughly one foot, and low rates of spread and flame heights relative to other shrub fuel models. Fuel Model 145 is a high load fuel model and has a fuel depth of 4-6 feet, with a very high rate of spread and flame length and high moisture of extinction. This fuel model represents both shrub dominated vegetation types as well as young conifer stands. The shrub fuels are fairly evenly distributed throughout the FMU

The proportion of the FMU represented by timber understory fuel models is fairly evenly split between two categories. Fuel model 161 has low fuel loads, with grass and/or shrub with litter being the primary carrier. This fuel model has a slow rate of spread and low flame lengths. Fuel model 165 is a very high fuel load model, with heavy forest litter and a shrub or small tree understory as the primary carrier. The spread rate and flame lengths are moderate for this fuel model relative to other timber fuel models.

Fuel Model Group	Average Size	Largest Polygon	Total Acres	Percent of Area
Unburnable	2.6	98	1,635	1%
Grass	3.8	196	2,092	1%
Grass/Shrub	2.3	88	1,951	1%
Shrub	6.3	1,507	38,829	26%
Timber Litter low ROS/FL	4.1	795	4,168	3%
Timber litter high ROS/FL	8.7	2,706	55,770	38%
Timber US low ROS/FL	14.8	2,105	20,978	14%
Timber US high ROS/FL	9.5	565	20,769	14%
Slash/Blowdown	7.5	980	980	1%

3.2.4.2 Weather

This FMU is in Fire Weather Zone CAZ280 and NFDRS Zone 200. This FMU is in the Northwest Mountains Predictive Service Area (NC04).

Inversions generally set in at around the 4200 foot level. When this occurs smoke will settle into the drainages below 4200, impacting both availability of aviation resources and local air quality in the surrounding communities.

Slater Butte is the closest RAWS location. It is a ridge top RAWS adjacent to the Slater Butte Lookout at an elevation of 4670 feet. This RAWS is strongly influenced by east winds that are channeled and accelerated down the Klamath River canyon. The RAWS sits on top of the inversion and East winds hit this RAWS site strongly (reference John Snook ONCC RAWS remarks 2008).